

Socioeconomics in BLM planning: Accounting for BLM's economic and social contributions

December 1, 2011

Gateway, CO





BLM Resource Advisory Councils

Partners Across The West

COLORADO NORTHWEST RESOURCE ADVISORY COUNCIL RESOLUTION 2009-02

Resolution in Support of Strengthening the BLM's Social Science Capabilities

Whereas: The Colorado Bureau of Land Management is responsible for management of the National System of Public Lands within Colorado;

Whereas: Management decisions for the National System of Public Lands have direct and indirect effects on the social and economic conditions conditions of local communities that are interdependent with public lands resources;

Whereas: The Northwest Colorado Resource Advisory Council has a duty, pursuant to the Federal Land Policy and Management Act, to representative citizen counsel and advice to the Secretary of the Interior through the BLM's Designated Federal Officer concerning the planning and management of public land resources;

Whereas: The analysis of effects and implementation of land use decisions requires high quality social and economic information to meet consistent national standards as well as thorough, transparent public involvement to address local and regional concerns;

Whereas: The BLM has undertaken a social science needs assessment to describe the BLM's current social science capabilities, define what capabilities are needed, identify and prioritize deficiencies and prepare an action plan for strengthening the BLM's social science capabilities;

Whereas: Improved social and economic analyses in BLM decision making will serve the interests of local communities, all public land users, and the American public;

Therefore be it Resolved that the Northwest Colorado Resource Advisory Council supports the BLM's effort to assess and improve social and economic analysis and decision making based on improved incorporation of the social sciences in its management plans and implementation of decisions. Specifically, the Northwest Colorado Resource Advisory Council that Colorado BLM:

1. Make available highly qualified social and economic subject matter experts within Colorado BLM (i.e. BLM state economists) to serve as specialists for social and economic information and analysis;
2. Supplement "in-house" social and economic science staff with qualified , experienced contractors on land use and implementation decisions;
3. Require a minimum standard approach for economic analysis and social assessments in all land-use-level and implementation-level decisions that includes interdisciplinary comparisons of the likely costs and benefits of alternatives . Include in such analyses substantial local and regional input, including information from local governments.

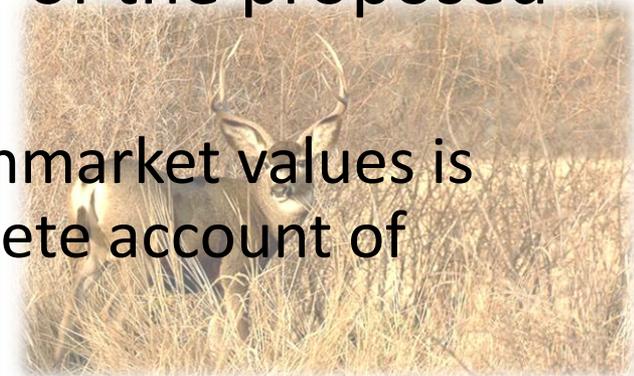
Passed, approved and adopted May 28, 2009.


Received by Designated Federal Officer
Jamie Connell


T. Wright Dickinson, Chair
Northwest Colorado Resource Advisory Council

Informing Resource Management

- ***Impact analysis*** estimates the distributional effects of an activity, or who gains and who loses.
 - For example, developing an oil and gas field employs workers and provides wages. Declines possible in other sectors, if oil and gas development displaced grazing activity.
- ***Benefit-cost analysis*** estimates the full range of benefits and costs of a proposed activity, providing a different measure of the suitability of the proposed action.
 - Some consideration of social and nonmarket values is usually necessary to provide a complete account of benefits and costs.



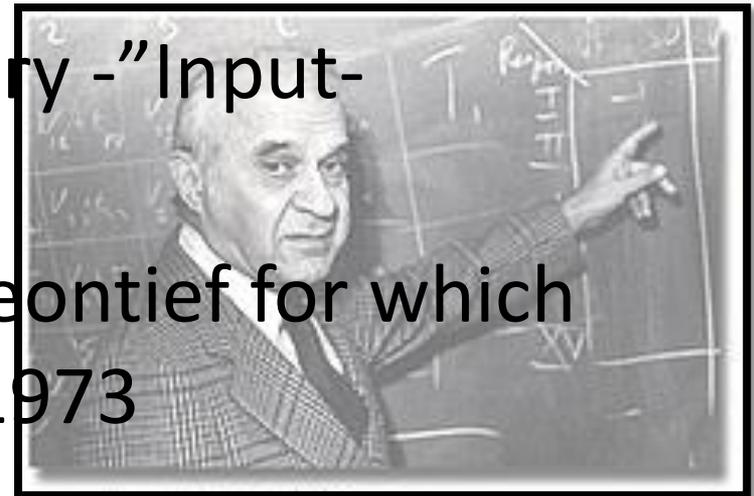
Impact Analysis

- IMPLAN (“IM”pact analysis for “PLAN”ning)
- IMPLAN developed by the Forest Service to look at the “big picture” - regional economics.



1. IMPLAN Software:

- Built on well accepted theory - “Input-Output” (I-O)
- I-O developed by Wassily Leontief for which he won the Nobel Prize in 1973



Impact Analysis

2. IMPLAN Data:

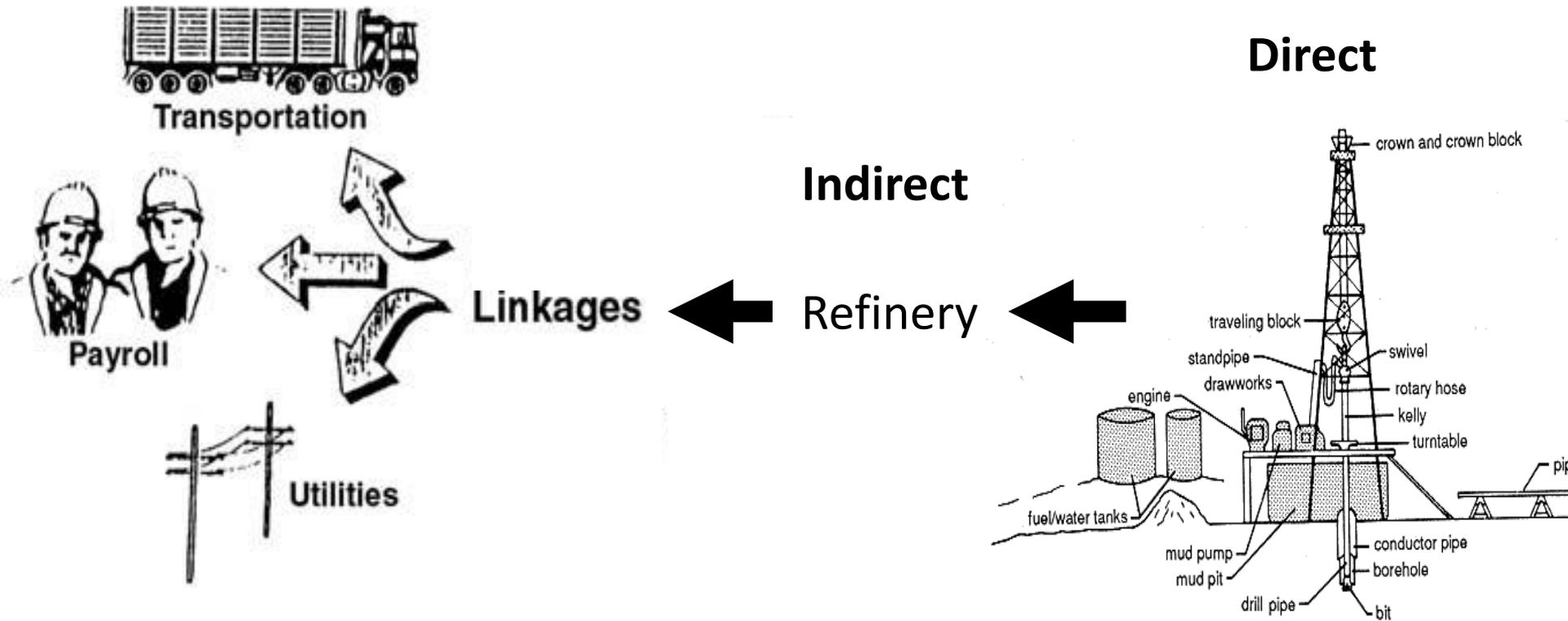
- Periodic collection of regional economic data for entire Forest Service would have been prohibitively expensive.
- “Non-survey” data derived from published sources. Methodology original but founded on well accepted ideas.
- Time lag, i.e.; most recent data available currently is 2009.



Impact Analysis

- Some of the principal uses of IMPLAN by BLM:
 - Land Management Planning; differences in alternatives
 - **Colorado River Valley Field Office RMP**
 - **Kremmling Field Office RMP**
 - **Dominquez-Escalante NCA RMP**
 - Site Specific Planning; Environmental Assessment
 - Policy analysis (i.e. Secretary's economic report, travel planning)

Direct, Indirect and Induced Effects



Direct, Indirect and Induced Effects

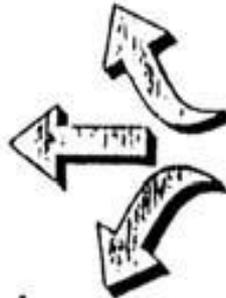
Direct



Indirect



Linkages



Transportation



Payroll



Utilities

I-O primer: Direct, Indirect and Induced Effects

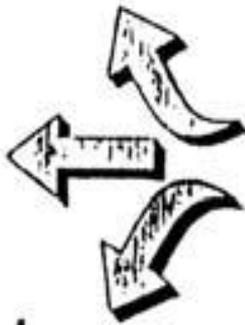
Direct



Indirect



Linkages



Transportation

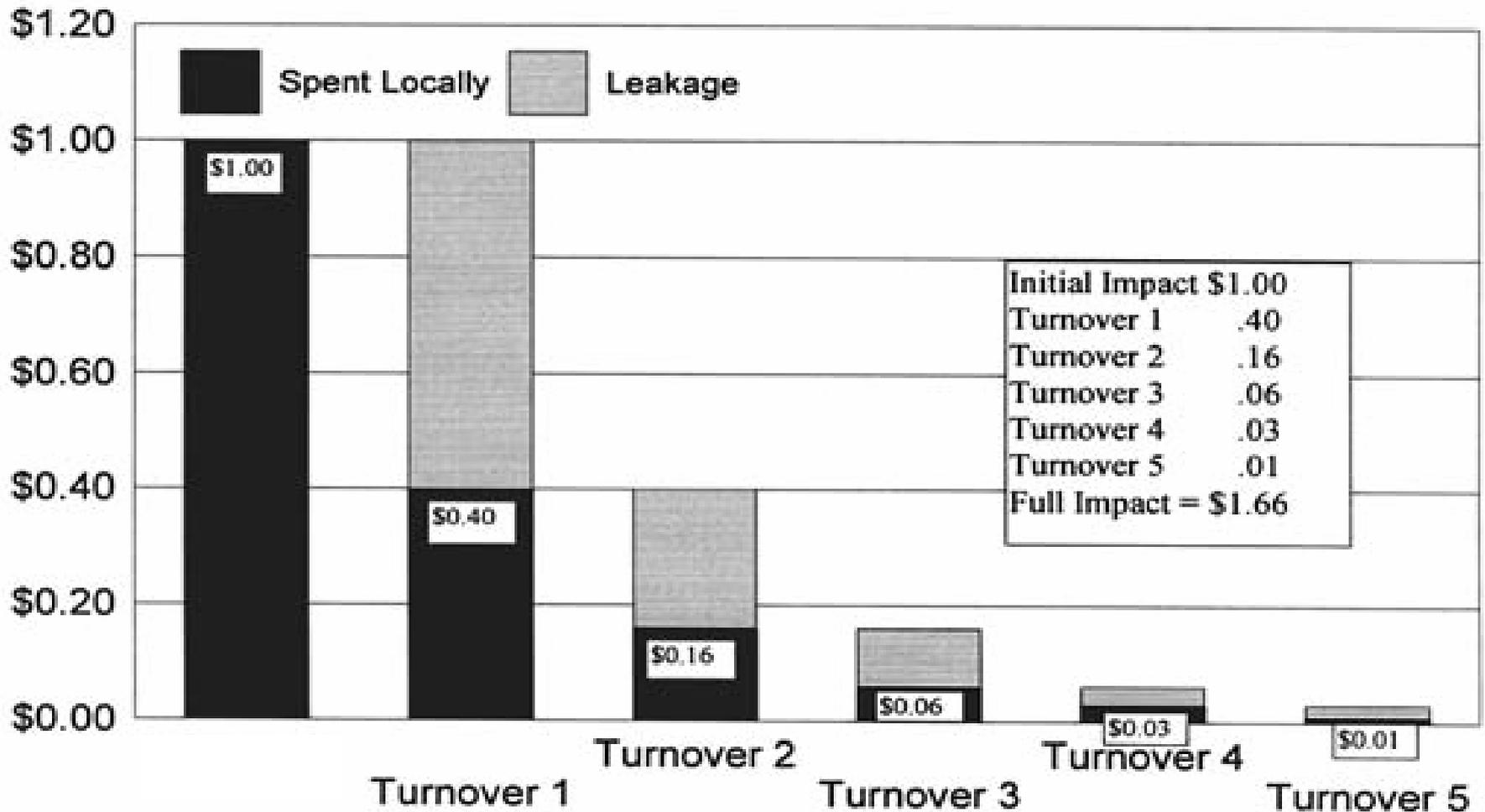


Payroll

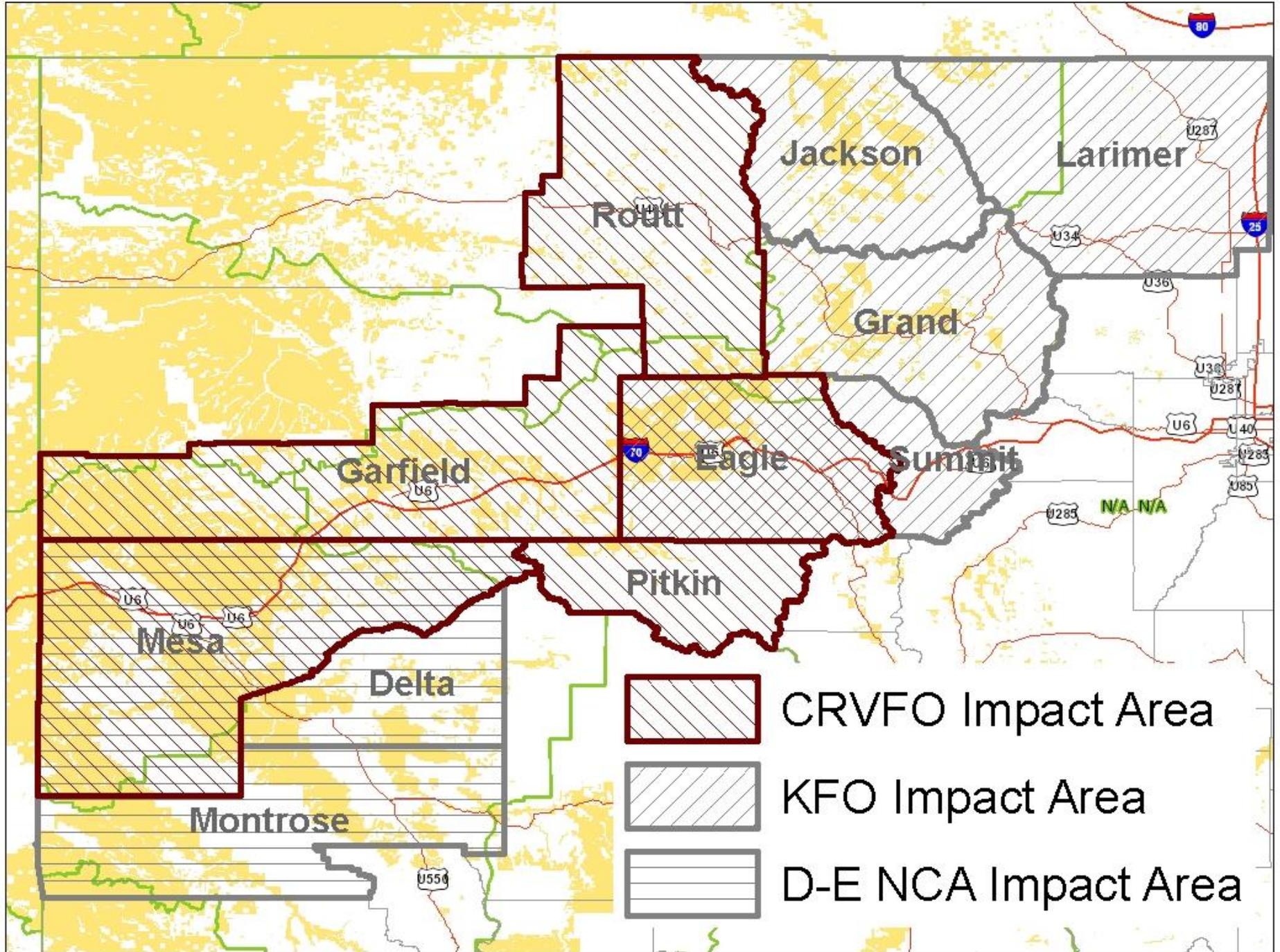


Utilities

I-O primer: Regional Economic Multipliers and Turnover



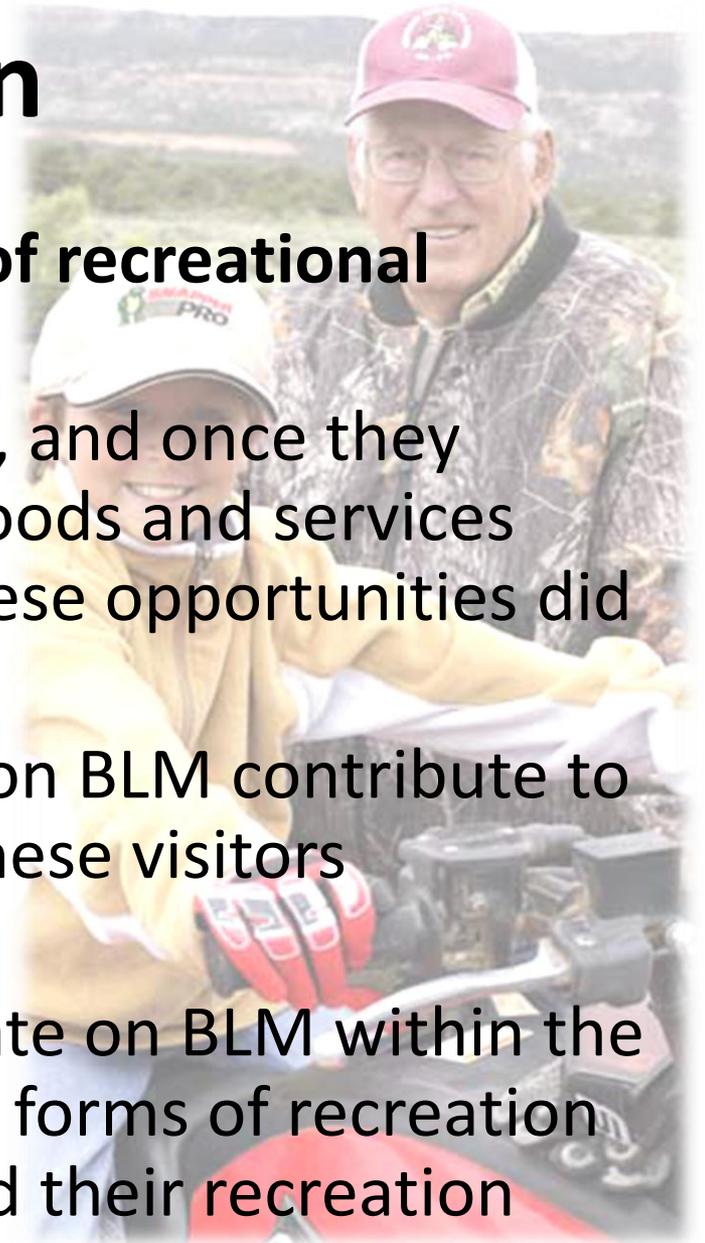
Source: Western Rural Development Center



Recreation

DENCA land provides a wide array of recreational opportunities

- On their way to the planning area, and once they arrive, visitors spend money on goods and services they would spend elsewhere if these opportunities did not exist on BLM
- In this manner the opportunities on BLM contribute to the local economy by attracting these visitors
- Non-local and Local Recreation
If local residents could not recreate on BLM within the NCA, they would likely find other forms of recreation in the area and continue to spend their recreation dollars in the local economy



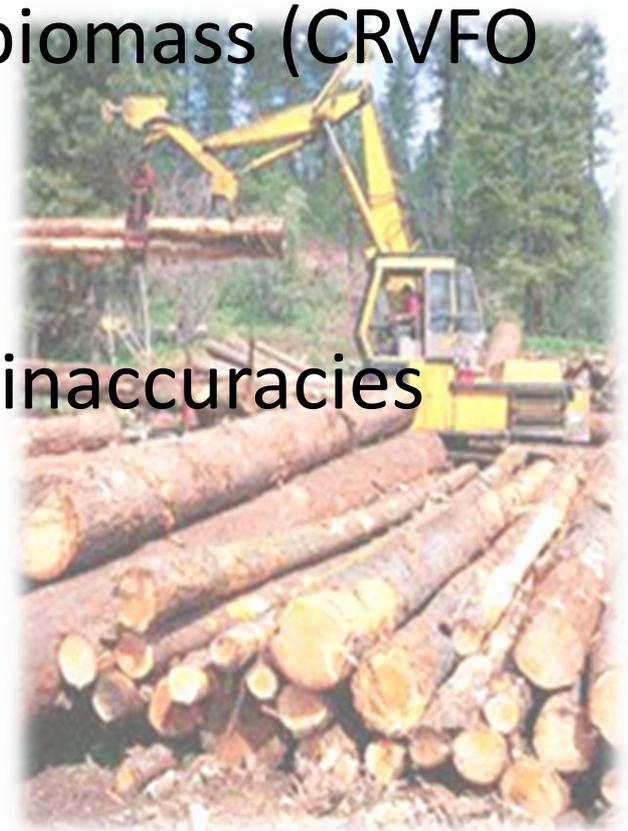
Grazing

- Animal Unit Months available from BLM
- Total grazing preference versus currently active
- Accounts for season of use on BLM
- Active levels of grazing on BLM are an important compliment to forage on other ownerships



Forest Products

- Variety of products from sawtimber and poles/posts to fuelwood and biomass (CRVFO and KFO)
- Volume based analysis avoids inaccuracies from price fluctuation



Minerals

- Oil & gas production & drilling (CRVFO and KFO)
- Sand and gravel (CRVFO and KFO)
- Landscape stone (CRVFO and KFO)
- Gypsum (CRVFO)
- Pumice (CRVFO)

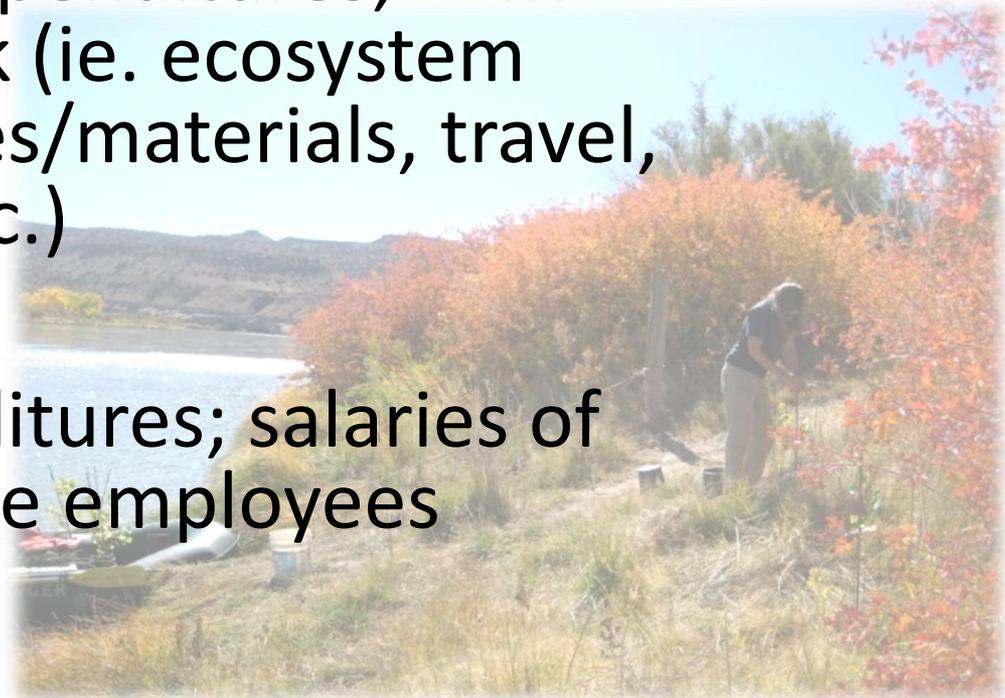
Payments to Counties

- Portion of Minerals royalties and lease payments
- Portion of Range Revenues
- Portion of the sale of other material: forest products
- Payments in Lieu of Taxes

BLM Expenditures and Employment

Salary and Non-salary expenditures

- Non-salary related expenditures; BLM program related work (ie. ecosystem management, supplies/materials, travel, utilities, contracts, etc.)
- Salary related expenditures; salaries of both full and part time employees



Externally Funded NCA Management

- Work accomplished with funds from sources outside of the BLM budget
- Restoration (weed treatment, planting, etc.) and recreation management (trails, etc.)



Summary of KFO Contributions

Resource Program	Jobs (Full and part time)	Labor Income (Thousands \$)
Non-local recreation	247.3	\$7,003
Local Recreation	31.9	\$1,245
Grazing	14.2	\$156
Forest Products	22.7	\$840
Minerals	5.9	\$535
BLM Expenditures	47.0	\$2,481
Payments to Counties	7.7	\$385
Total BLM Management	376.8	\$12,646

Employment: Current role of BLM related activity in the impact area economy

Industry	Area Totals	BLM related	BLM share of industry
Agriculture	3,390	23.6	0.7%
Mining*	597	3.7	0.6%
Utilities	466	0.7	0.1%
Construction	27,649	5.0	0.0%
Manufacturing	12,718	14.4	0.1%
Wholesale Trade	4,170	13.5	0.3%
Transportation & Warehousing	29,498	6.2	0.0%
Retail Trade	3,594	58.6	1.6%
Information	3,475	2.9	0.1%
Finance & Insurance	6,074	4.7	0.1%
Real Estate & Rental & Leasing	13,381	9.0	0.1%
Prof, Scientific, & Tech Services	17,196	9.5	0.1%
Mngt of Companies	699	0.7	0.1%
Admin, Waste Mngt & Rem Serv	13,597	9.0	0.1%
Educational Services	2,838	2.1	0.1%
Health Care & Social Assistance	20,963	22.1	0.1%
Arts, Entertainment, and Rec	9,497	18.2	0.2%
Accommodation & Food Services	29,512	146.7	0.5%
Other Services	14,164	12.4	0.1%
Government	34,391	13.9	0.0%
Total	247,867	376.8	0.2%

Summary of CRVFO Contributions

Resource Program	Jobs (Full and part time)	Labor Income (Thousands \$)
Non-local recreation	97.5	\$3,723
Local Recreation	91.0	\$3,630
Grazing	38.7	\$299
Forest Products	0.2	\$7
Minerals	84.6	\$6,929
BLM Expenditures	78	\$4,211
Externally Funded Mgmt	0.3	\$8
County Payments	62.3	\$3,264
Total BLM Management	452.6	\$22,070

Employment: Current role of BLM related activity in the impact area economy

Industry	Area Totals	BLM related	BLM share of industry
Agriculture	3,421	37.3	1.1%
Mining*	6,752	34.8	0.5%
Utilities	679	1.3	0.2%
Construction	29,567	16.8	0.1%
Manufacturing	4,651	5.4	0.1%
Wholesale Trade	4,310	16.5	0.4%
Transportation & Warehousing	23,973	8.1	0.0%
Retail Trade	5,647	63.4	1.1%
Information	2,326	3.4	0.1%
Finance & Insurance	5,442	8.7	0.2%
Real Estate & Rental & Leasing	11,900	12.7	0.1%
Prof, Scientific, & Tech Services	10,453	16.5	0.2%
Mngt of Companies	457	1.3	0.3%
Admin, Waste Mngt & Rem Serv	9,413	10.9	0.1%
Educational Services	2,198	3.3	0.2%
Health Care & Social Assistance	16,011	37.4	0.2%
Arts, Entertainment, and Rec	11,412	17.8	0.2%
Accommodation & Food Services	23,425	99.1	0.4%
Other Services	11,517	18.0	0.2%
Government	21,816	39.8	0.2%
Total	205,371	452.6	0.2%

Summary of D-E NCA Contributions

Resource Program	Jobs (Full and part time)	Labor Income (Thousands \$)
Non-local recreation	35.2	\$1,004
Local Recreation	13.4	\$420
Grazing	19.7	\$227
BLM Expenditures	13.7	\$698
Externally funded mgmt	7.3	\$173
Payments to Counties	3.2	\$142
Total BLM Management	92.6	\$2,664

Employment: Current role of BLM related activity in the impact area economy

Industry	Area Totals	BLM related	BLM share of industry
Agriculture	5,226	23.3	0.4%
Mining*	4,131	0.0	0.0%
Utilities	503	0.2	0.0%
Construction	10,062	0.4	0.0%
Manufacturing	4,441	1.0	0.0%
Wholesale Trade	3,240	3.8	0.1%
Transportation & Warehousing	4,220	2.2	0.1%
Retail Trade	13,271	15.8	0.1%
Information	1,234	0.9	0.1%
Finance & Insurance	3,461	2.1	0.1%
Real Estate & Rental & Leasing	3,671	2.3	0.1%
Prof, Scientific, & Tech Services	4,479	1.3	0.0%
Mngt of Companies	252	0.1	0.0%
Admin, Waste Mngt & Rem Serv	4,386	1.2	0.0%
Educational Services	892	0.4	0.0%
Health Care & Social Assistance	13,764	4.9	0.0%
Arts, Entertainment, and Rec	1,479	6.4	0.4%
Accommodation & Food Services	8,320	21.8	0.3%
Other Services	6,885	2.6	0.0%
Government	15,868	1.9	0.0%
Total	109,783	92.6	0.1%

Benefits and Costs of Management

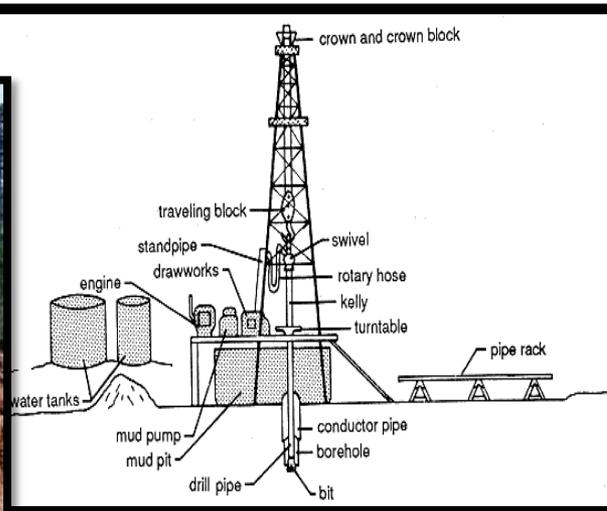
Job and labor income impacts are important but need to accompany an analysis of other economic and social values.

Benefit Cost Analysis

- Value of commodities produced on BLM Lands
- Social and Non-market Values
 - Use Values: Ecosystem services, recreation, scenery
 - Non-use Values: existence values (habitat, wildlife, etc.) and the value of resources for future use.

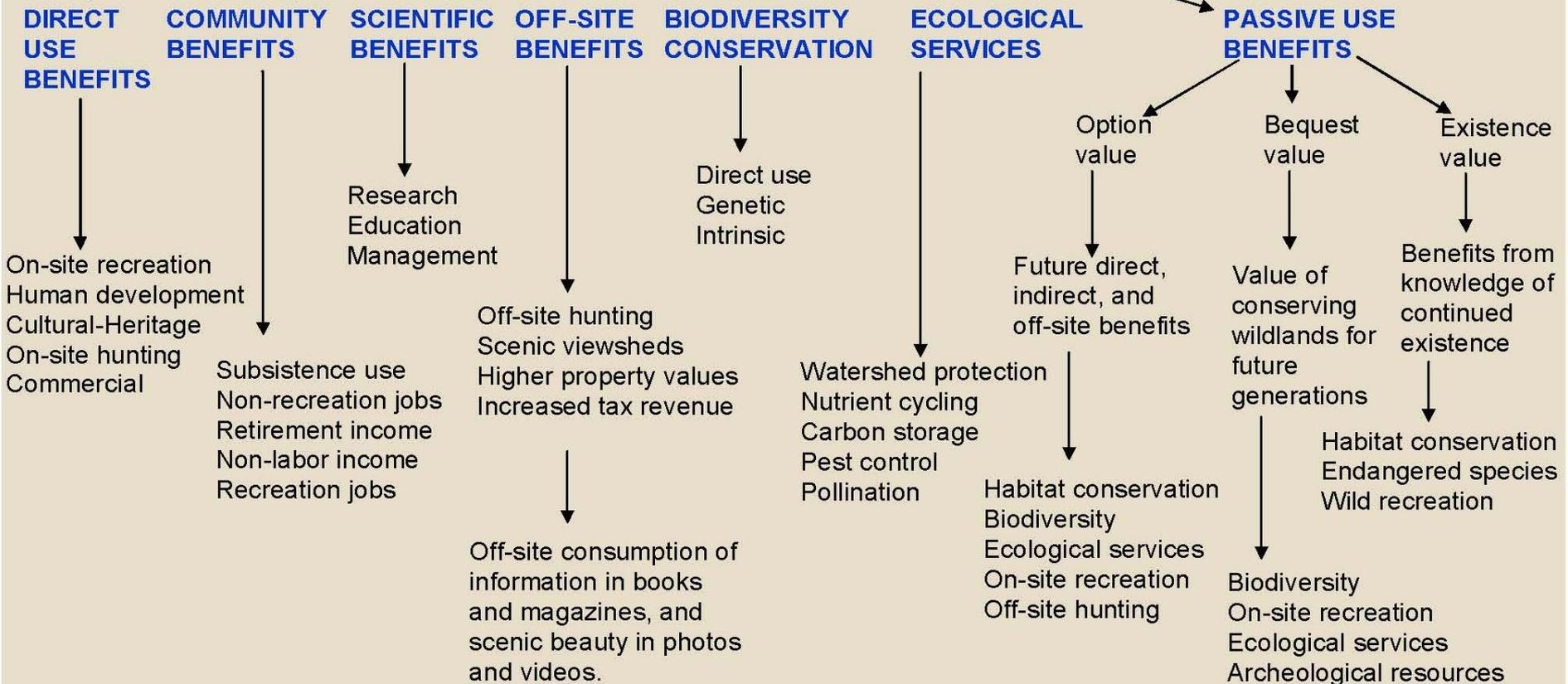
Benefits and Costs of Management

- Value of commodities produced on BLM Lands
 - Available from quantity available and market price



Non-Market Values

• Use Values and Non-use Values



DECREASING "TANGIBILITY" OF VALUE TO INDIVIDUALS

Non-Market Values

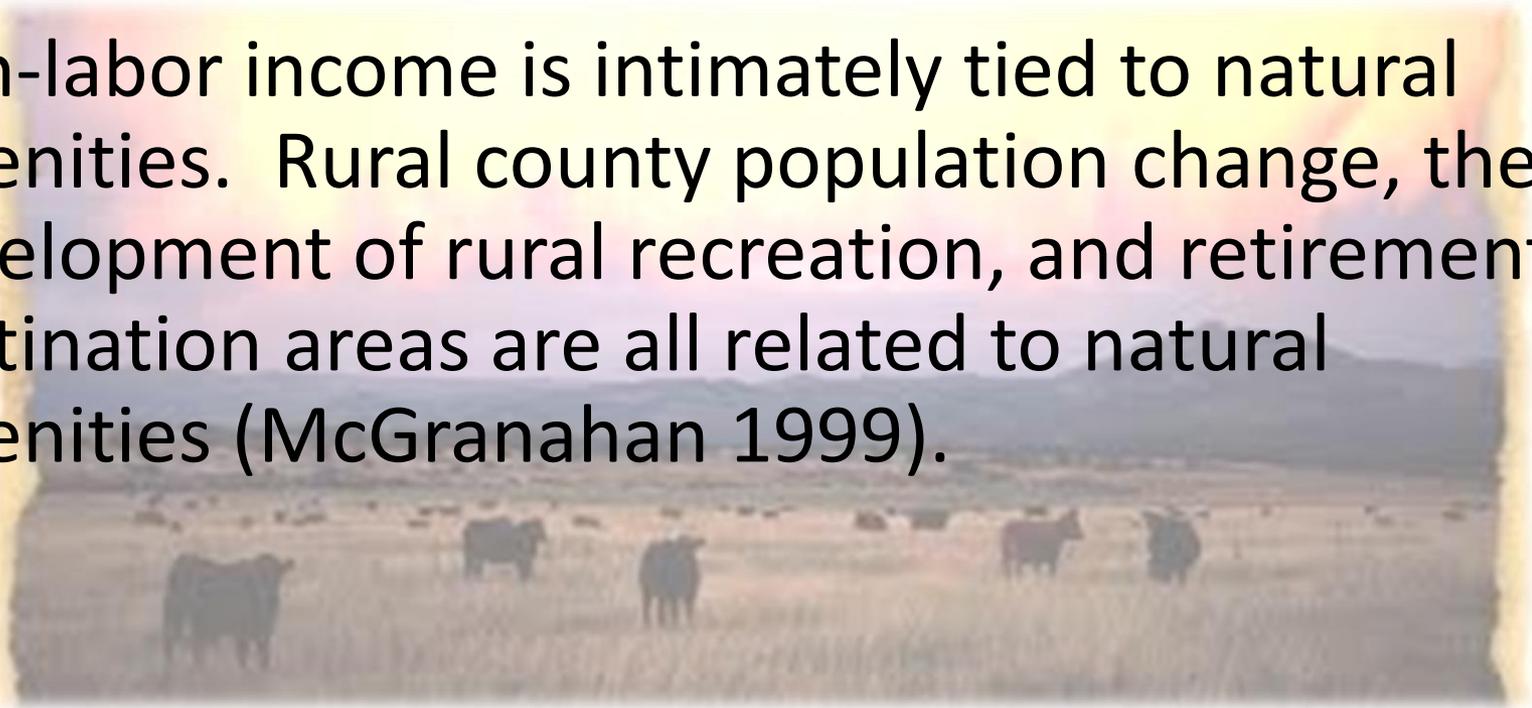
- Difficult to quantify!!
- Constraints (time & \$\$) and limitations (revealed preference and hypothetical)
- However, economic analysis should consider all relevant values, not merely those that are easy to quantify.

Non-Market Values

- Difficult to quantify!!
- Constraints (time & \$\$) and limitations (revealed preference and hypothetical)
- However, economic analysis should consider all relevant values, not merely those that are easy to quantify.
- Direction provided in BLM's Land Use Planning Handbook suggests the use of benefit transfer.
- In the absence of quantitative information they are discussed qualitatively.

“Role of Amenities, Migration and Non-Market Values”

- Natural amenities and quality of life have been increasingly recognized as important factors in the economic prospects of many rural communities in the West (Rudzitis and Johnson 2000).
- Non-labor income is intimately tied to natural amenities. Rural county population change, the development of rural recreation, and retirement-destination areas are all related to natural amenities (McGranahan 1999).



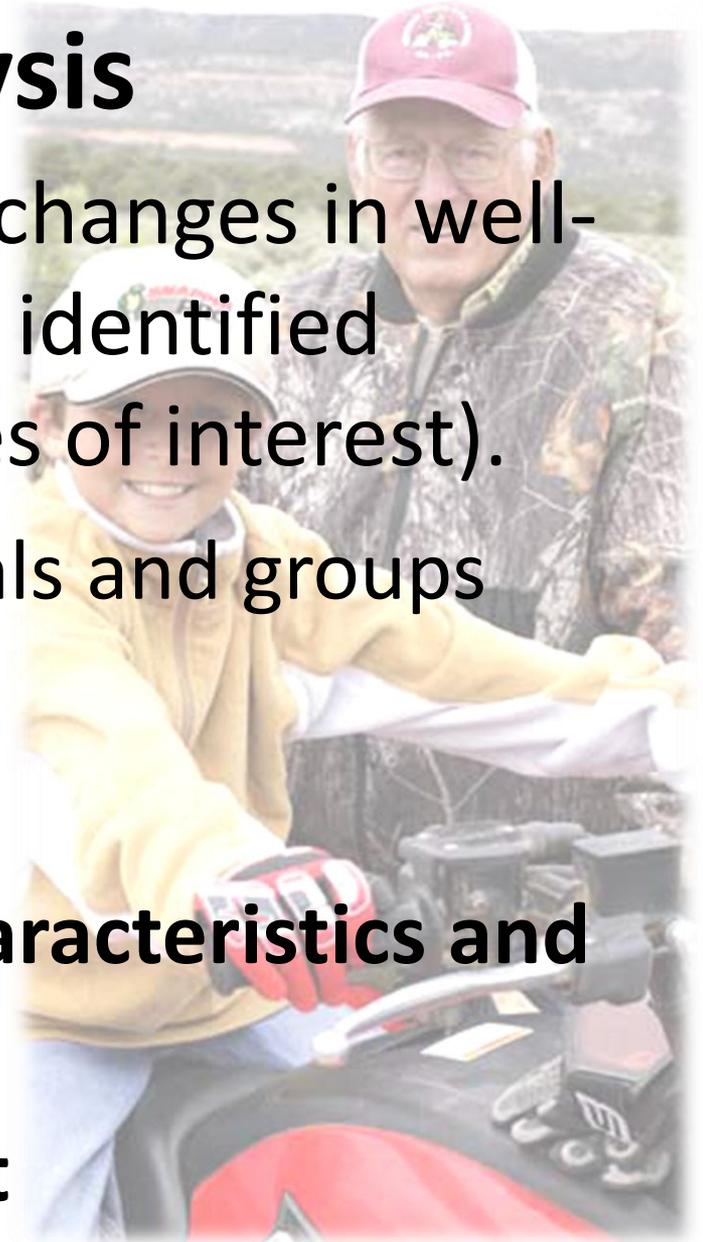
“Role of Amenities, Migration and Non-Market Values”

- Thus, designations that maintain and protect natural amenities and associated non-market values may similarly contribute to area economic well-being.
- The Land Use Planning Process establishes areas to be managed for wilderness character, changes to ACECs and other special designations such as Visual Resource Management (VRM) designations.
- Special designations used as a proxy for non-market values associated with BLM lands



Social Analysis

- Social analysis focuses on changes in well-being and quality of life of identified communities (communities of interest).
- Examples include individuals and groups interested in:
 - **recreation and access**
 - **preservation of rural characteristics and values**
 - **oil and gas development**

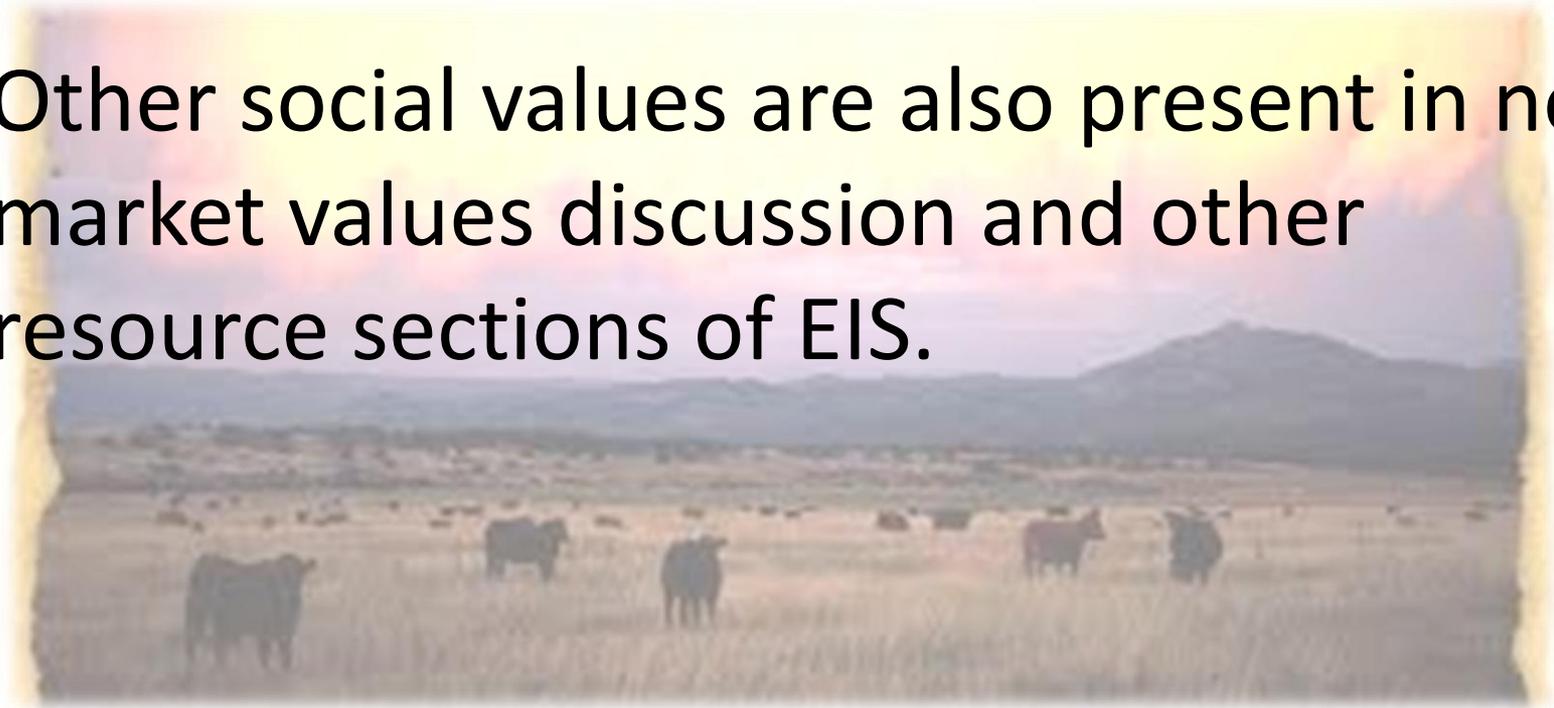


Social Analysis

Resource	Current	Alternative A No Action	Alternative B	Alternative C Preferred	Alternative D
Non wildlife recreation	244,280	338,041	338,041	338,041	487,543
Wildlife recreation	24,263	33,576	33,576	33,576	48,425
Oil and Gas Development (# of wells per year)	177	177	154	154	254
Oil and Gas Development (Average daily trips per year)	562	562	489	489	806
Trails and Travel Management (acres limited to designated routes)	0	123,000	467,600	467,400	473,500

Social Analysis

- Social analysis includes those communities identified in public scoping and other outreach efforts. Will be supplemented between Draft and Final EIS.
- Other social values are also present in non-market values discussion and other resource sections of EIS.



Environmental Justice

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low income populations.

Environmental Justice

- Establish presence of environmental justice populations (as defined by Council of Environmental Quality)
- Examine potential for disproportionate and adverse effects to communities